

**ABSTRACT**

Conical surfaces (and other complex surface shapes) can be interferometrically characterized using a locally spherical measurement wavefront (e.g., spherical and aspherical wavefronts). In particular, complex surface shapes are measured relative to a measurement point datum. This is achieved by varying the radius of curvature of a virtual surface  
5 corresponding to a theoretical test surface that would reflect a measurement wavefront to produce a constant optical path length difference (e.g., zero OPD) between the measurement and reference wavefronts.